REMARKS

Claims 1-19 and 69-72 are pending. Claims 20-68 were previously cancelled without prejudice. Claims 1 and 69-72 have been amended. Support for the amendments is found in the specification and claims as filed.

Double Patenting

Claims 69-72 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 2-5. Contrary to the assertion in the double patenting rejection, Claim 1 does not recite a symmetrical membrane having the same pore sizes (30 microns) on both the first and the second surfaces. Claim 1 is silent as to the symmetry or asymmetry of the membrane, and recites, *inter alia*, a membrane wherein "the pores of the first surface have an average pore diameter of greater than about 30 μm, and wherein the pores of the second surface have an average pore diameter of greater than about 30 μm". Claim 1 encompasses both symmetrical (e.g., isotropic) membranes and asymmetrical membranes, and does not exclude membranes wherein the average pore diameter of the first surface and the second surface are different.

Claims 69-72 have been amended to depend from Claim 2. Accordingly, Applicants respectfully request withdrawal of the objection.

Rejection under 35 USC § 102(b)

Claims 1-5, 8, 14, 16-19 and 69-72 have been rejected under 35 USC § 102(b), as anticipated by U.S. Patent No. 4,973,382 ("Kinn et al."), or in the alternative, have been rejected under 35 USC § 103(a), as obvious over Kinn et al. "A rejection for anticipation under section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference." *See, e.g., In re Paulsen*, 31 U.S.P.Q.2d 1671 (Fed. Cir. 1994). To articulate a *prima facie* case of obviousness under 35 U.S.C. §103(a), the PTO must, *inter alia*, cite prior art that teaches or suggests all the claimed limitations. *In re Royka*, 490 F.2d 981 (C.C.P.A. 1974). Kinn et al. does not disclose every element of Applicants' pending claims, and therefore cannot be considered as an anticipating reference under 35 U.S.C. § 102(b).

The sole pending independent claim recites a cast polymer membrane mesh comprising, *inter alia*, "a coagulated support structure between the first surface and the second surface." Kinn et al. only discloses a filtration fabric produced by a wet laid process, the fabric consisting of a

plurality of fiber components of dissimilar denier and length which are evenly intermingled and bonded together in a sheet. Kinn et al. does not disclose a membrane comprising a coagulated support structure. Accordingly, Applicants respectfully request that the rejections be withdrawn.

Claim Rejection - 35 U.S.C. § 103(a)

Claims 6, 7, and 15 have been rejected under 35 U.S.C. §103(a) as obvious over Kinn et al. in view of U.S. Patent No. 6,146,747 ("Wang et al."). If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Kinn et al is directed to a method for preparing nonwoven filtration fabrics prepared by a wet laid forming process. The wet laid forming process involves preparing a homogeneous slurry of water and the fiber components of dissimilar denier and length evenly distributed therein, transferring the slurry to a wet laid forming machine and removing the water from the slurry through a porous web to form a wet mat or sheet, applying a binder to the wet sheet, and drying the binder-impregnated wet sheet with sufficient heat to remove the water and cause polymerization and bonding together of the fibers. See Kinn et al., col. 2, lines 33-41. In contrast, Wang et al. is directed to a phase inversion process for preparing membranes. The phase inversion process of Wang et al. involves providing a casting dope containing a PVDF polymer dissolved in a solvent, casting the dope to form a thin film, exposing the thin film to a gaseous environment, coagulating the film in a water bath, and recovering a formed microporous PVDF polymer membrane. See Wang et al., col. 6, lines 39-47.

The wet laid forming process and the phase inversion process involve fundamentally different processes for forming membranes, and the membranes produced by the two processes exhibit fundamental differences, as is appreciated by one skilled in the art. Accordingly, the suggested combination of references would require a change in the basic principle under which the Kinn et al. process operates to form a membrane (or, *vice versa*, the process under which the Wang et al. process operates to form a membrane). The teachings of the references are therefore not sufficient to render the claims *prima facie* obvious, and Applicants respectfully request that the rejection be withdrawn.

Claim Rejection - 35 U.S.C. § 103(a)

Claims 9-13 have been rejected under 35 U.S.C. §103(a) as obvious over Kinn et al. in view of U.S. Patent No. 5,869,174 ("Wang"). As discussed above, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. Wang is directed to a phase inversion process for preparing membranes. The phase inversion process of Wang et al. involves providing a casting solution of a polyethersulfone polymer in a mixture of solvent and nonsolvent, wherein said casting solution is a stable, clear, homogeneous solution or stable colloidal dispersion, casting the solution as a thin film, exposing the film to a gaseous environment, then coagulating it in a quench bath to yield an asymmetric polyethersulfone membrane. See Wang, col. 5, lines 12-24.

As discussed above, the wet laid forming process and the phase inversion process involve fundamentally different processes for forming membranes, and as such the suggested combination of references would require a change in the basic principle under which the Kinn et al. process operates to form a membrane (or, *vice versa*, the process under which the Wang process operates to form a membrane). The teachings of the references are therefore not sufficient to render the claims *prima facie* obvious, and Applicants respectfully request that the rejection be withdrawn.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining

concerns that might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,

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Dated: September 1, 2004

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